

Ryan Chouest Data Summary Cruise 6/25/2010

Review Date 6/26/2010

Summary:

This sampling report presents data collected from the Ryan Chouest for the period of 6/25/2010. The Ryan Chouest submitted a compilation of their activities covering 6/19/2010 – 6/23/2010.

Science results and preliminary interpretation:

Fluorometry measurements for all three sensors show low to medium inferred hydrocarbon concentrations and are generally higher offshore of Mobile Bay and Pensacola. However, values decrease towards Panama City, which is consistent with measurements along this track in Cruise 4. The Trios sensor shows three regions of higher medium-level inferred hydrocarbon concentrations beginning at 30° 15'N 87 20'W and eastwards ~30° 20'N 86 45'W. The Contros sensor shows the least variability of the three sensors along this track.

Orange and red mousse emulsions were observed offshore of Pensacola and Orange Beach. The observations are consistent with positions noted in approximately the same locations as shown in the Cruise 4 Summary Report.

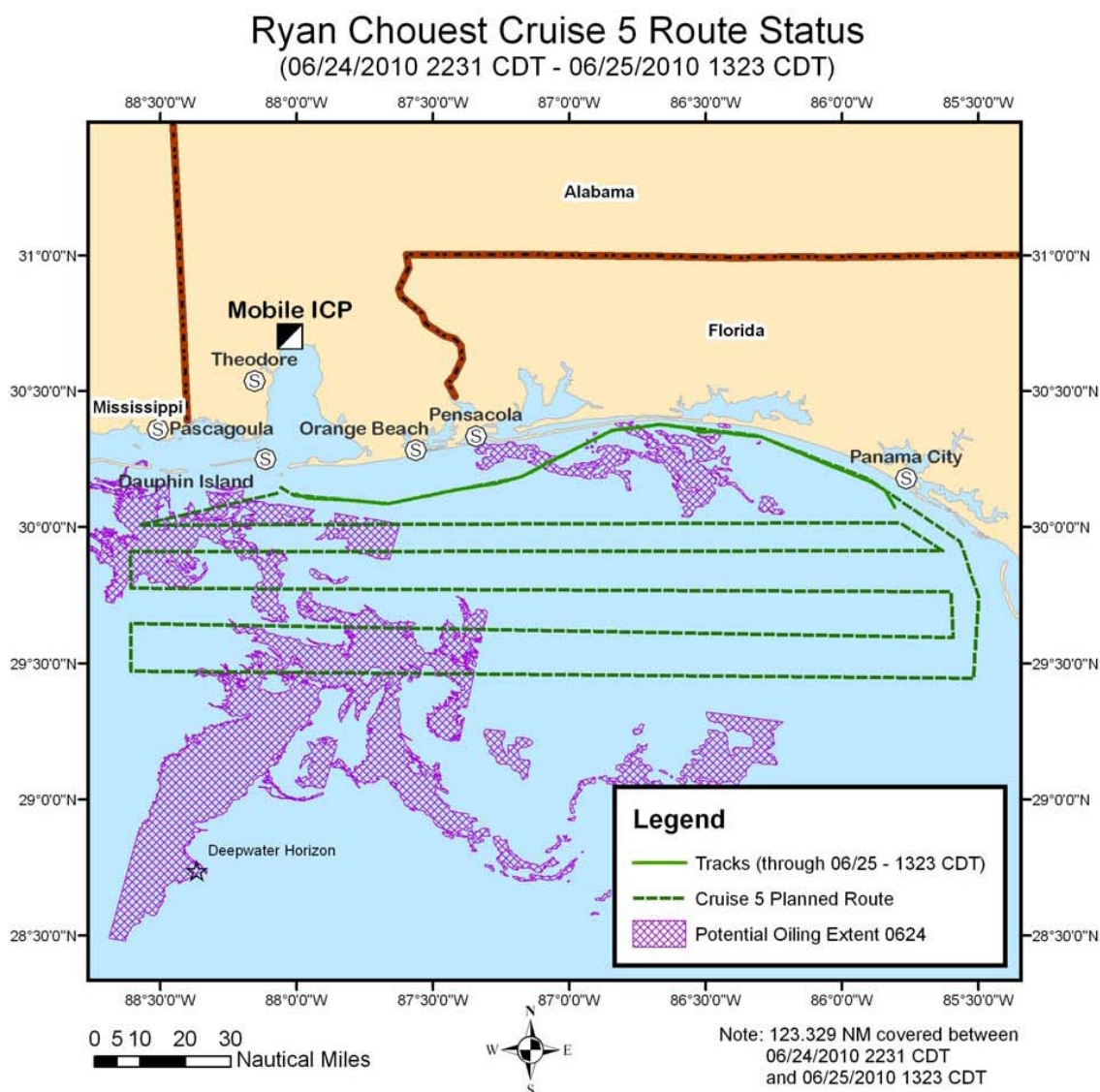


Figure 1: Planned versus actual route course plotted between 06/24/2010 –06/25/2010. Purple shaded area represents outline extent of the slick from 06/24 ERMA composite.

Vessel Science Operations:

They logged fluorometry measurements and observed sea-surface conditions. They continue to perform liquid-liquid extractions on seawater samples and analyze with the GCMS.

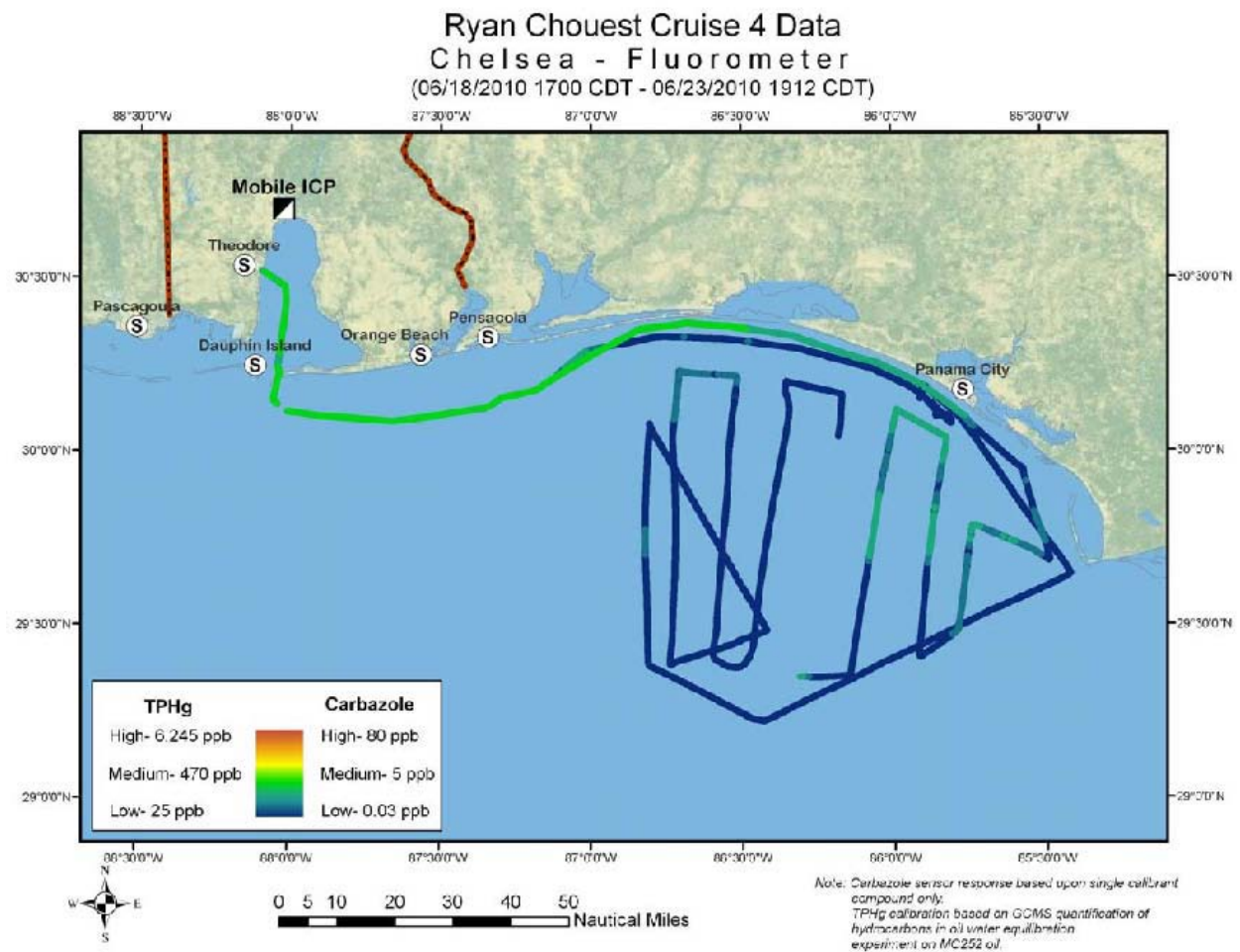


Figure 2. Chelsea fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

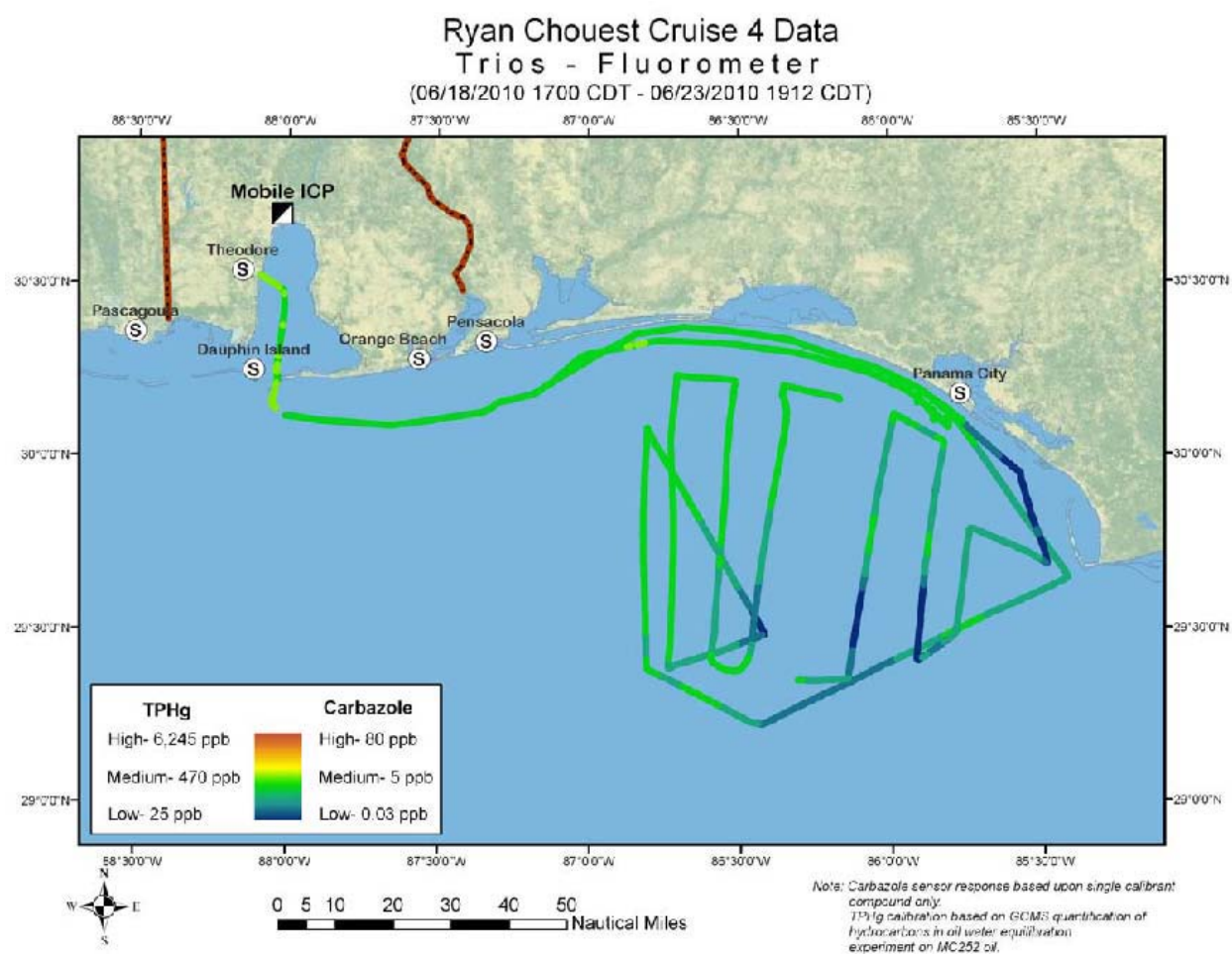


Figure 3. Trios fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

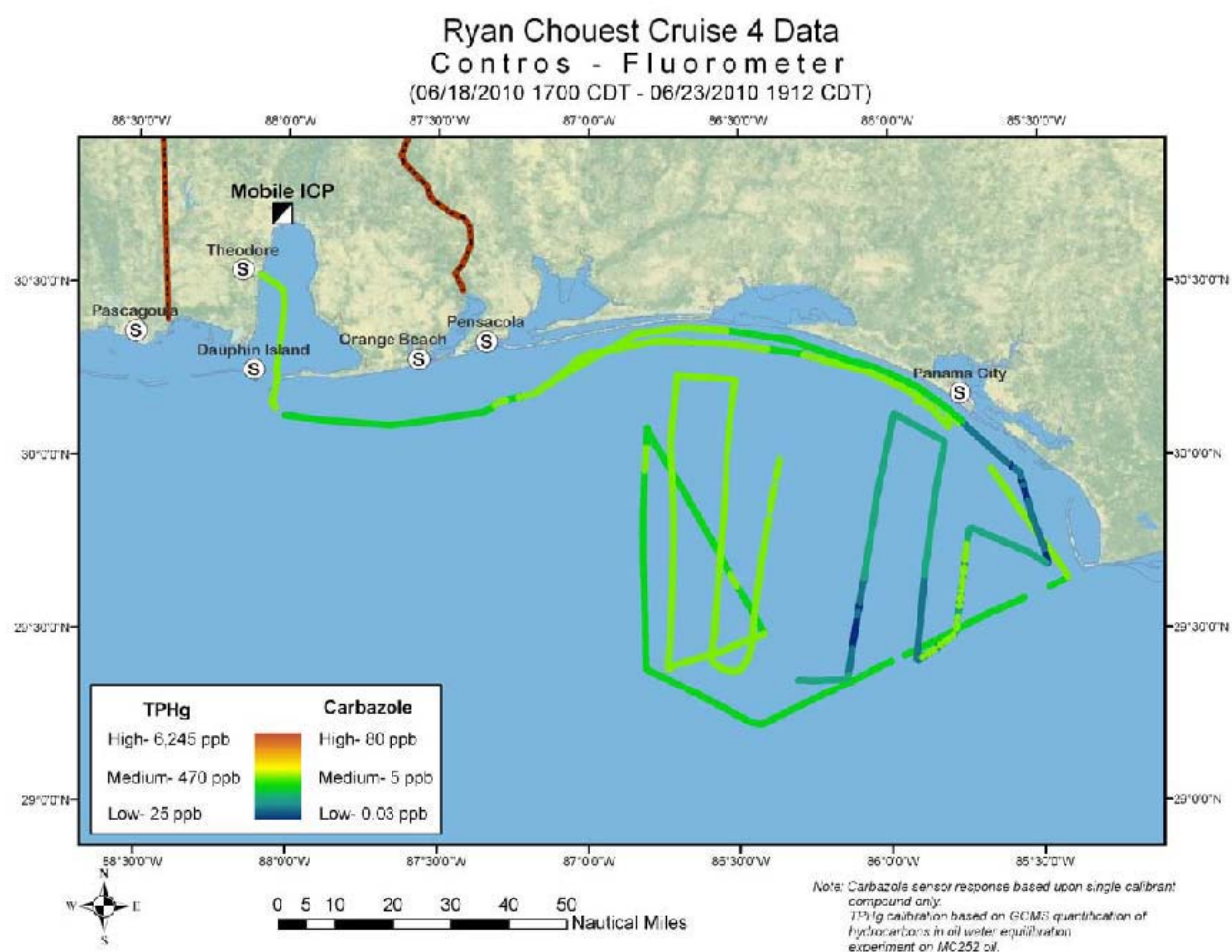


Figure 4. Contros fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Problems/Operational Issues:

There are no problems at this time. The 150m hose was unreeled and the electrical cable was attached and then respoiled. The new equipment will be ready for deployment once the epoxy sets, which should be by tomorrow afternoon.

Ryan Chouest Data Summary Cruise 6/23/2010

Review Date 6/26/2010

Summary:

This sampling report presents data collected from the Ryan Chouest for the period of 6/23/2010.

Since 1427hrs, 06/22/2010, the Ryan Chouest has sailed on the course as planned and arrived in Port Theodore at 1830hrs. Since their arrival, they have taken on an extra

20,000 gallons of fuel so that the ship has sufficient range in the event that they are diverted elsewhere by a potential storm. Also, the engines underwent routine maintenance and essential science supplies were delivered to the ship. Two additional CSIRO scientists as well as two C & C technology marine surveyor specialists have joined the Ryan Chouest to record ship track information and monitor the sea surface oil slick conditions.

Science results and preliminary interpretation:

Fluorometry measurements for all three sensors used (the Chelsea, the Trios and the Contros) show low to medium inferred hydrocarbon concentrations and generally increase to medium levels towards Panama City. All three sensors gave similar results and exhibit medium levels from Panama City and along the coastline transect until reaching Theodore, Alabama. The sensors have now been calibrated with dissolved hydrocarbon equilibrated water.

Surface observations noted light surface sheens and mostly small pieces of orange mousse. There was also a region with orange mousse pancakes up to 0.5m in diameter.

Vessel science operations:

The Ryan Chouest continued to log fluorometer measurements and observe/photo document sea-surface conditions until reaching port. The jib crane was outfitted with pulley wheels on the block to reduce stress on the hose and electrical wires during descent and ascent. They also now have >500' of continuous reinforced electrical wire for the 150m hose and pump assembly. They will rig up this equipment tomorrow.

Planned activities for next 24 hours:

The Ryan Chouest is sailing along the coast towards Port St. Joe. They anticipate reaching Port Theodore early morning on Wednesday, June 30th. The planned science activities are to test less weathered parts of the oil spill.

Planned versus actual route taken for cruise 4:

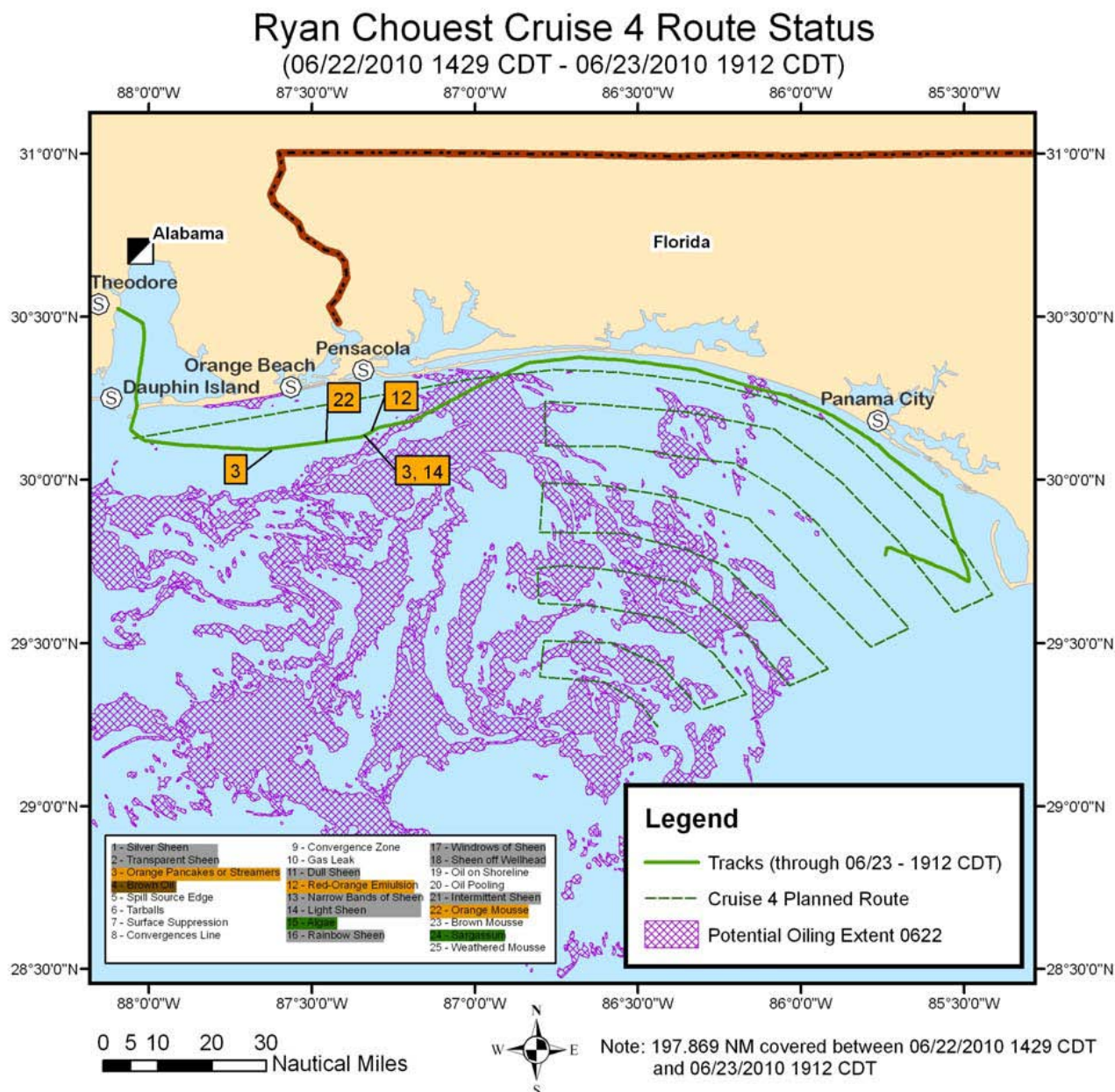


Figure 1: Planned versus actual route course plotted between 06/22/2010 – 06/23/2010. Purple shaded area represents outline extent of the slick from 06/22 ERMA composite.

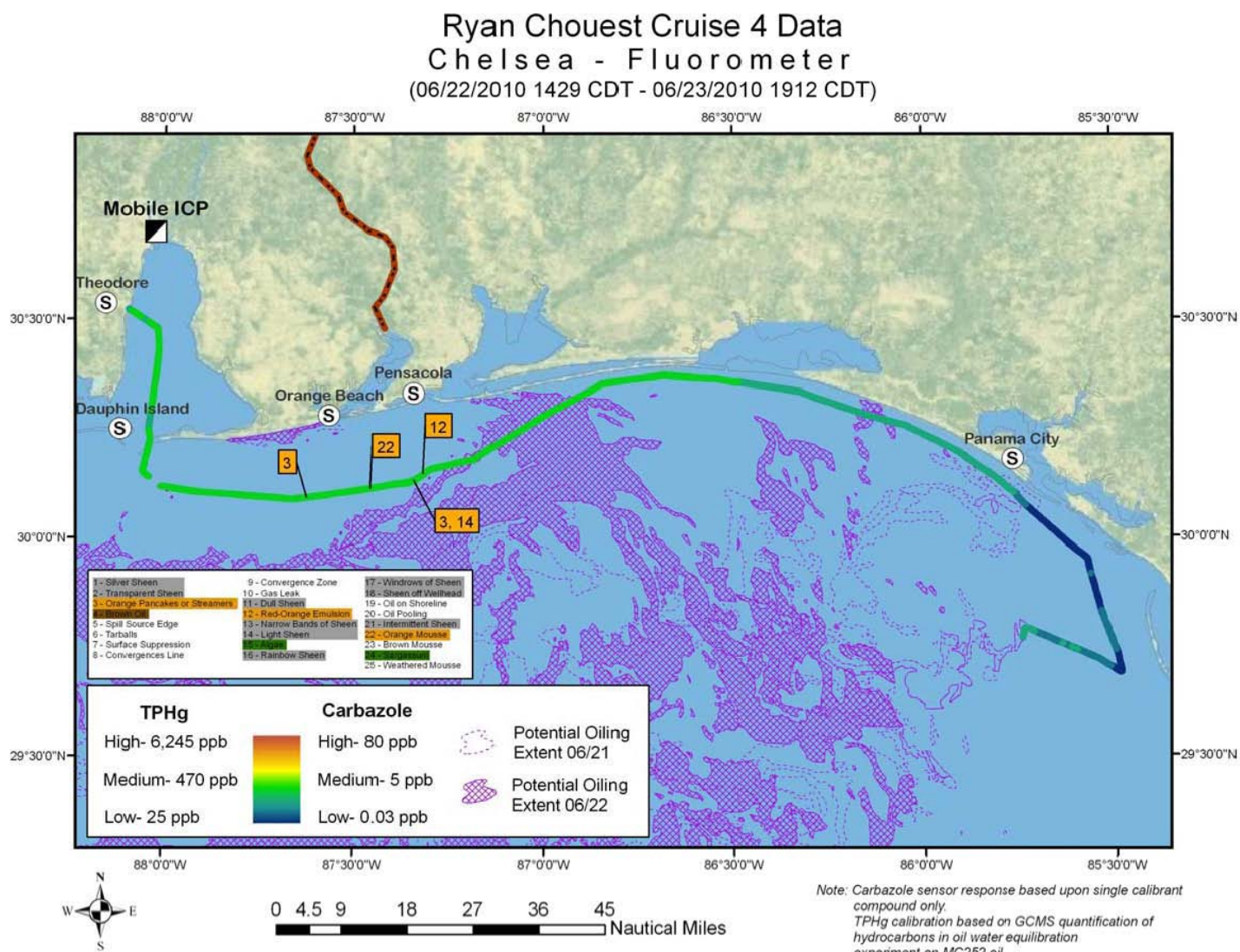


Figure 2: Chelsea fluorometer results plotted with location on Cruise 4 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Ryan Chouest Cruise 4 Data
Trios- Fluorometer
 (06/22/2010 1429 CDT - 06/23/2010 1912 CDT)

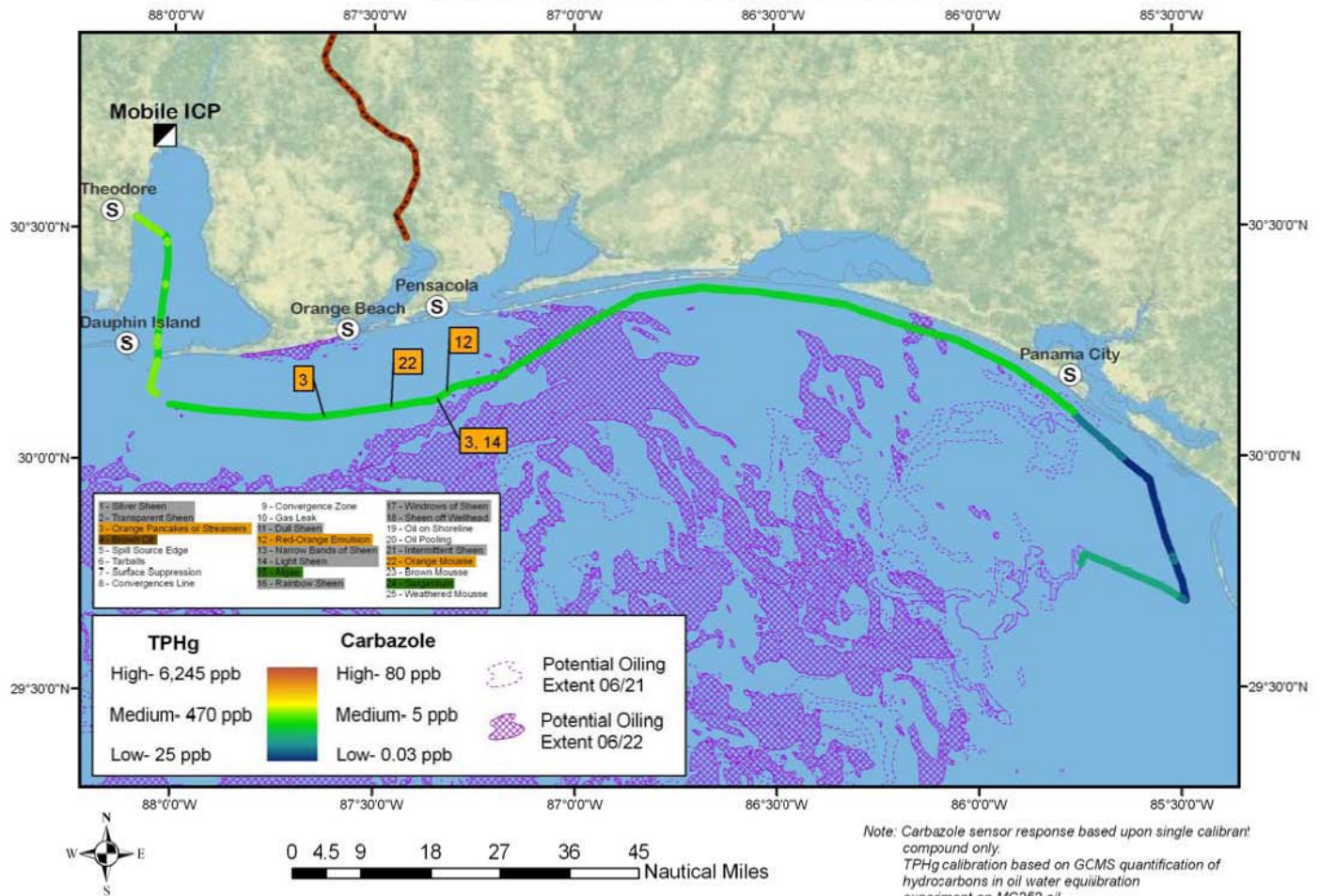


Figure 3: Trios fluorometer results plotted with location on Cruise 4 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Ryan Chouest Cruise 4 Data
Contros- Fluorometer
 (06/22/2010 1429 CDT - 06/23/2010 1912 CDT)

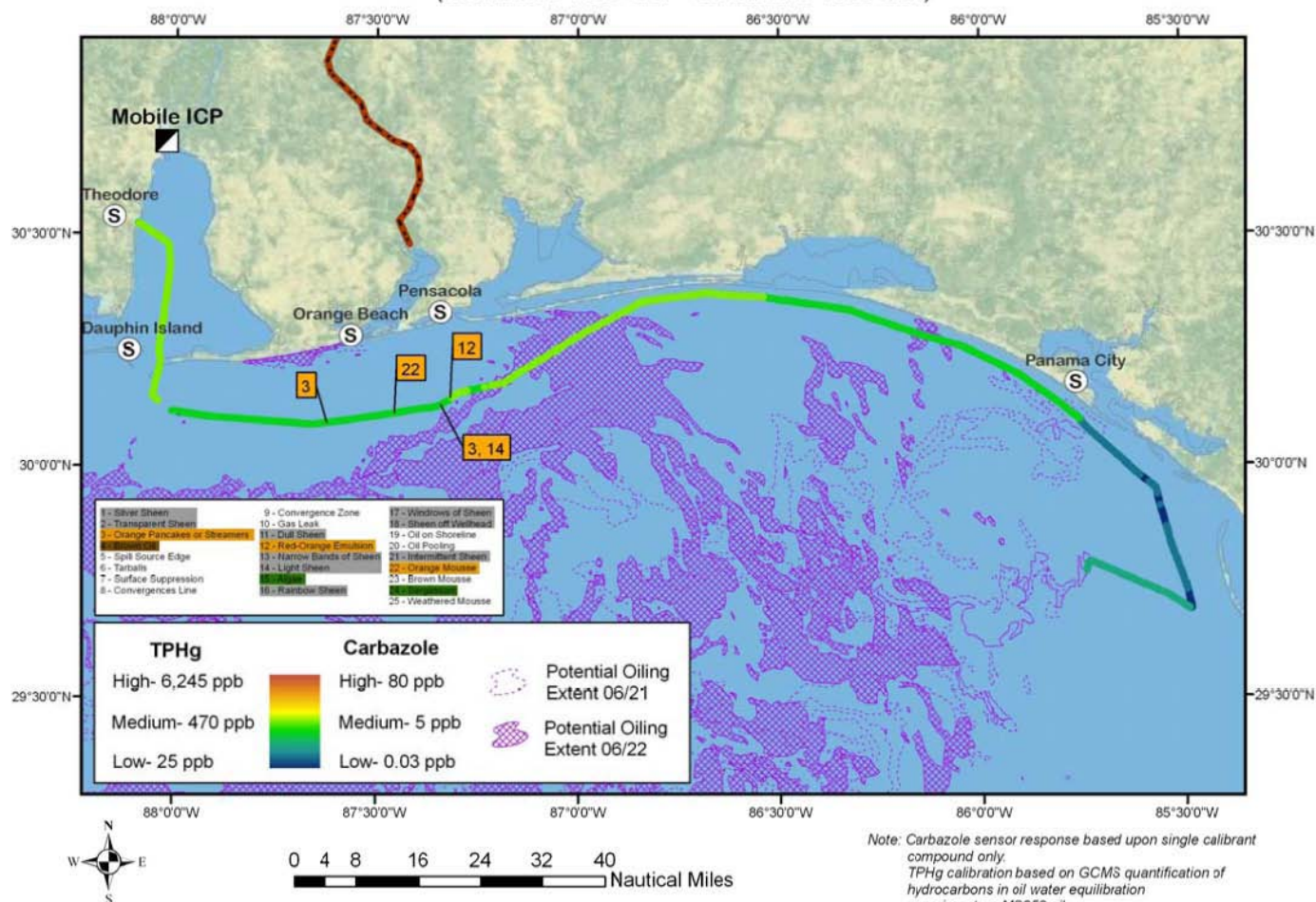
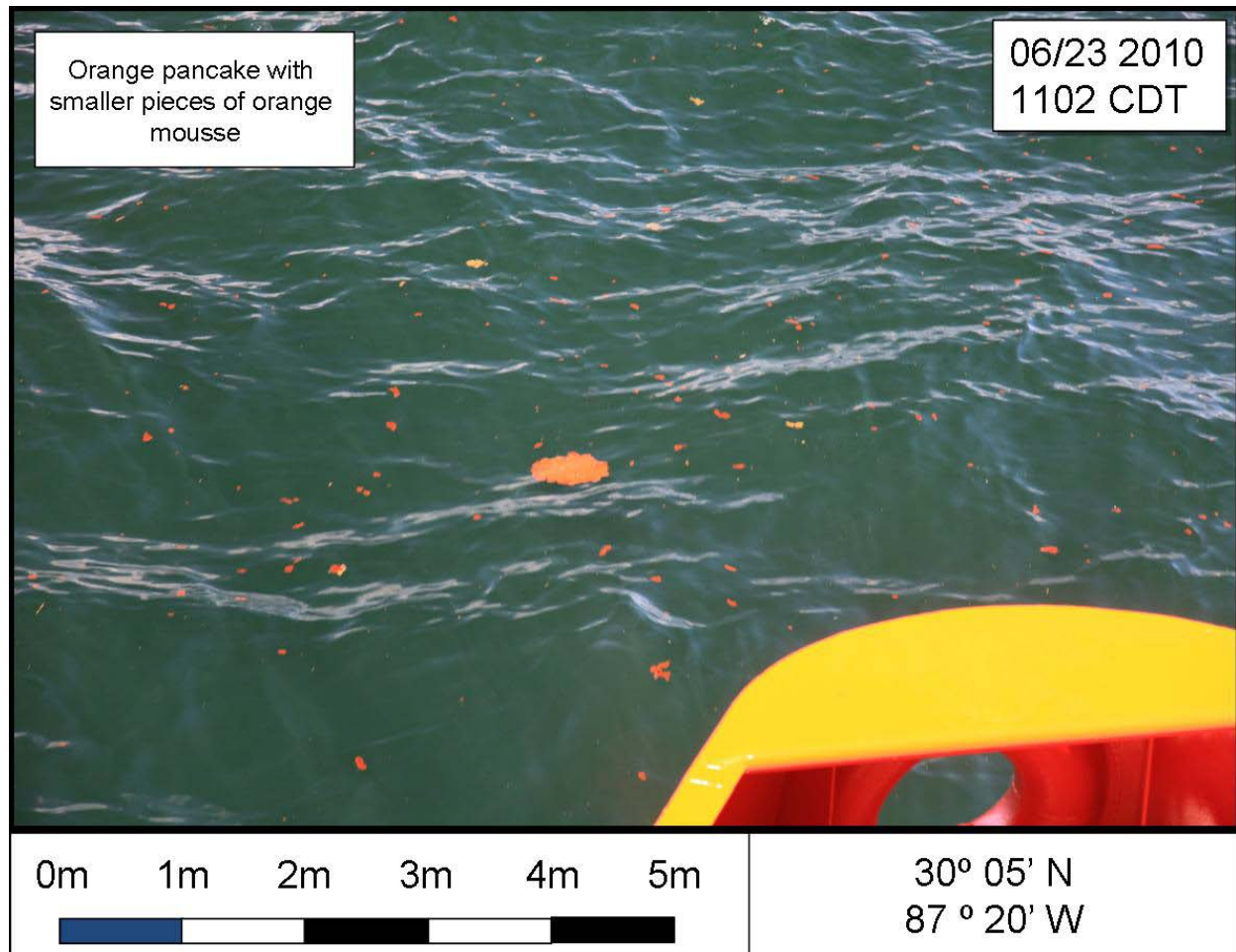


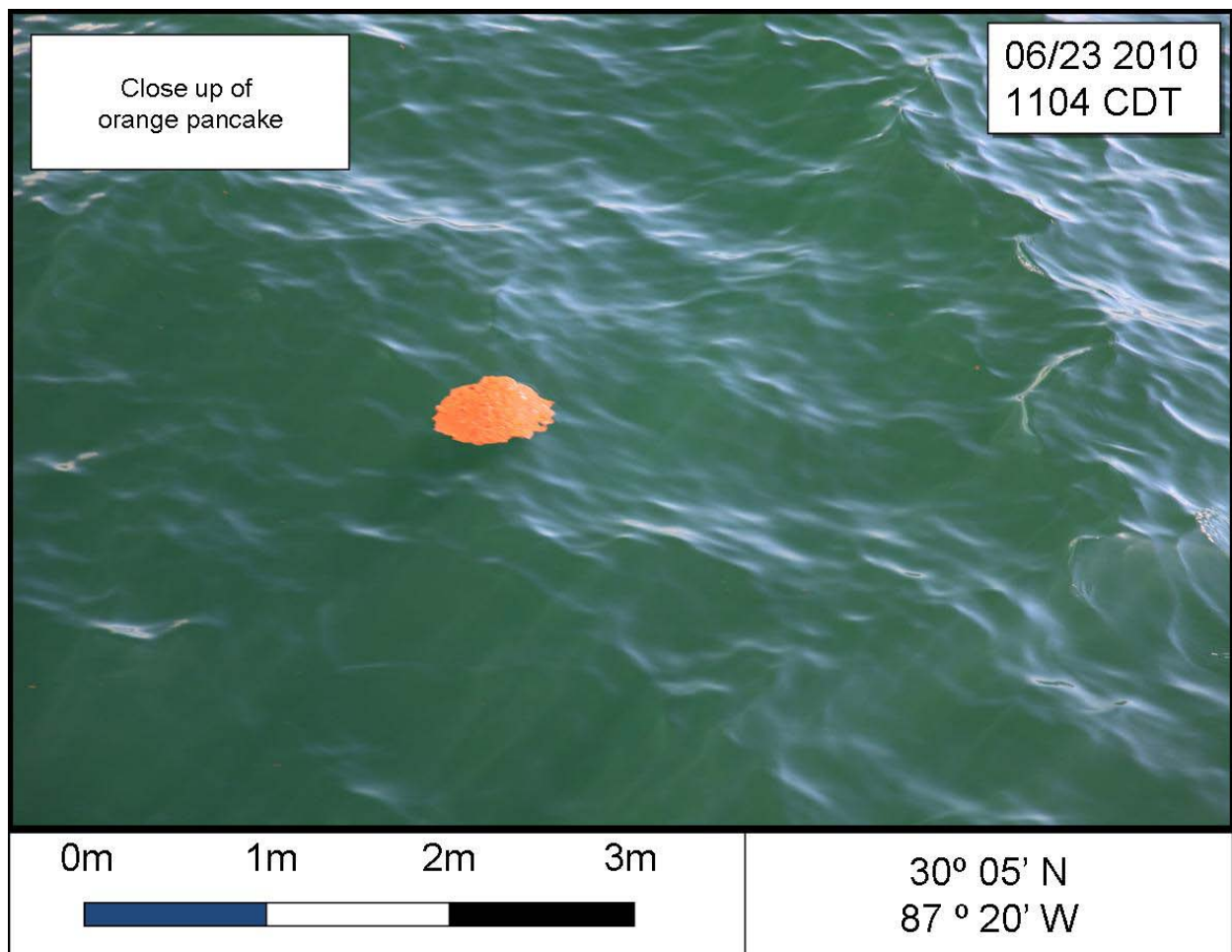
Figure 4: Contros fluorometer results plotted with location on cruise 4 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Photographs

The following photographs were included in the Ryan Chouest's daily report:



Photograph 1: Orange pancake surrounded by smaller pieces of disseminated orange mousse. Pancakes were as large as 0.5 meters in diameter. This was the typical surface observation for the region labeled with slick type 3 in Figure 1.



Photograph 2: Close up of typical orange pancakes observed in parts of map transect labeled with slick type 3.